AMENDMENTS

This listing of claims will replace all prior versions and listings of claims in the application:

18. (Previously Presented) A micromechanical scanning device comprising:

a first micromechanical mirror having a first radius of curvature value;

a first micromechanical drive mechanism configured to drive said first micromechanical mirror;

a second micromechanical mirror facing said first micromechanical mirror, where said second michromechanical mirror has a second radius of curvature value; and

a second micromechanical drive mechanism configured to drive said second micromechanical mirror;

wherein said first micromechanical mirror is convex and said second micromechanical mirror is concave.

19. (Previously Presented) The micromechanical scanning device of claim 18, wherein an absolute value of said first radius of curvature value is substantially the same as an absolute value of said second radius of curvature value.

20. (Currently Amended) The micromechanical scanning device of claim 18, wherein said first micromechanical mirror has a first reflective optical surface that is ~~concave~~ convex and said second micromechanical mirror has a second reflective optical surface that is ~~convex~~ concave , where said first reflective optical surface faces said second reflective optical surface.

21. (Currently Amended) The micromechanical scanning device of claim ~~18~~ 20 , wherein before assembly said first micromechanical mirror is fabricated with its first reflective optical surface facing down, and said second micromechanical mirror is fabricated with its second reflective optical surface facing up.

22. (Previously Presented) The micromechanical scanning device of claim 18, wherein at least one of divergence and convergence that said first micromechanical mirror induces in a reflected optical wavefront is largely canceled after reflection by the second micromechanical mirror.

23. (Previously Presented) The micromechanical scanning device of claim 18, further comprising mirror curvature compensation optics configured to compensate for at least one of said first radius of curvature value and said second radius of curvature value so as to improve optical resolution of said micromechanical scanning device.

24. (Currently Amended) The micromechanical scanning device of claim ~~18~~ 23, wherein said mirror curvature compensation optics are located between a light source and said first micromechanical mirror, between said first and second micromechanical mirrors, or between said second micromechanical mirror and a display onto which said light is projected.

25. (Previously presented) The micromechanical scanning device of claim 24, wherein said display is a retina of an eye.

26. (Previously Presented) The micromechanical scanning device of claim 18, wherein said first micromechanical mirror is configured to move at a first frequency and said second micromechanical mirror is configured to move at a sub-harmonic frequency with respect to said first frequency.

27. (Currently Amended) The micromechanical scanning device of claim ~~18~~ 24 , wherein said light source is configured to be modulated and synchronized with said micromechanical mirrors to produce a displayed image.

28. (Previously Presented) The micromechanical scanning device of claim 18, further comprising:

a first micromechanical spring attached to said first micromechanical drive mechanism to control the motion applied to said first micromechanical mirror from said first micromechanical drive mechanism; and

a second micromechanical spring attached to said second micromechanical drive mechanism to control the motion applied to said second micromechanical mirror from said second micromechanical drive mechanism.

29. (Currently Amended) The micromechanical scanning device of claim 18, wherein said ~~a~~ first micromechanical drive mechanism is implemented as a single comb drive that controls the position of a point of said first micromechanical mirror.

30. (Previously Presented) The micromechanical scanning device of claim 18, wherein said second micromechanical drive mechanism is implemented as a pair of comb drives that control the position of two points of said second micromechanical mirror.

31. (Currently Amended) A micromechanical scanning device comprising:

a first micromechanical mirror having a ~~concave~~ convex reflective surface with a first radius of curvature value;

a first micromechanical drive mechanism configured to drive said first micromechanical mirror;

a second micromechanical mirror having a ~~convex~~ concave reflective surface with a second radius of curvature value, wherein said ~~concave~~ convex reflective surface faces said ~~convex~~ concave reflective surface, and wherein an absolute value of said first radius of curvature value is substantially the same as an absolute value of said second radius of curvature value; and

a second micromechanical drive mechanism configured to drive said second micromechanical mirror.

32. (Previously Presented) The micromechanical scanning device of claim 31, wherein an absolute value of said first radius of curvature value is substantially the same as an absolute value of said second radius of curvature value.

33. (Currently Amended) The micromechanical scanning device of claim 31, wherein said first micromechanical mirror has a first reflective optical surface that is ~~concave~~ convex and said second micromechanical mirror has a second reflective optical surface that is ~~convex~~ concave , where said first reflective optical surface faces said second reflective optical surface.

34. (Previously Presented) The micromechanical scanning device of claim 33, wherein before assembly said first micromechanical mirror is fabricated with its first reflective optical surface facing down, and said second micromechanical mirror is fabricated with its second reflective optical surface facing up.

35. (Previously Presented) The micromechanical scanning device of claim 31, wherein at least one of divergence and convergence that said first micromechanical

mirror induces in a reflected optical wavefront is largely canceled after reflection by the second micromechanical mirror.

36. (Previously Presented) The micromechanical scanning device of claim 31, further comprising mirror curvature compensation optics configured to compensate for at least one of said first radius of curvature value and said second radius of curvature value so as to improve optical resolution of said micromechanical scanning device.

37. (Currently Amended) The micromechanical scanning device of claim ~~31~~ 36, wherein said mirror curvature compensation optics are located between a light source and said first micromechanical mirror, between said first and second micromechanical mirrors, or between said second micromechanical mirror and a display onto which said light is projected.

38. (Previously Presented) The micromechanical scanning device of claim 37, wherein said display is a retina of an eye.

39. (Previously Presented) The micromechanical scanning device of claim 31, wherein said first micromechanical mirror is configured to move at a first frequency and said second micromechanical mirror is configured to move at a sub-harmonic frequency with respect to said first frequency.

40. (Previously Presented) The micromechanical scanning device of claim 31, wherein said light source is configured to be modulated and synchronized with said micromechanical mirrors to produce a displayed image.

41. (Currently Amended) The micromechanical scanning device of claim 31, further comprising:

a first micromechanical spring attached to said first micromechanical drive mechanism to control the motion applied to said first micromechanical mirror from said first micromechanical drive mechanism; and

a second micromechanical spring attached to said second micromechanical drive mechanism to control the motion applied to said second micromechanical mirror from said second micromechanical drive ~~mechanis~~ mechanism.

42. (Previously Presented) The micromechanical scanning device of claim 31, wherein said a first micromechanical drive mechanism is implemented as a single comb drive that controls the position of a point of said first micromechanical mirror.

43. (Previously Presented) The micromechanical scanning device of claim 31, wherein said second micromechanical drive mechanism is implemented as a pair of comb drives that control the position of two points of said second micromechanical mirror.

44. (Currently Amended) A micromechanical scanning device comprising:

a first micromechanical mirror having a ~~concave~~ convex reflective surface with a first radius of curvature value;

a second micromechanical mirror having a ~~convex~~ concave reflective surface with a second radius of curvature value, wherein said concave reflective surface faces said convex reflective surface, and wherein an absolute value of said first radius of curvature value is substantially the same as an absolute value of said second radius of curvature value.

45. (Previously Presented) A micromechanical scanning device comprising a convex micromechanical mirror that faces a concave micromechanical mirror, wherein said mirrors have substantially the same absolute radius of curvature.